Draft impact assessment on the package of improvements to current short-run variable charges

Contents

1. Summary

1. The purpose of this impact assessment is to assess the potential benefits and costs of implementing a broad package of improvements to our current short-run variable charges to address known weaknesses. These charges largely deal with the costs directly incurred as a result of operating a train service. The package is described in detail in section 5 of this impact assessment.

Main conclusions of this impact assessment

2. Below we provide a summary of the costs and benefits of implementing the improvements package.

3. Positive impacts of implementing the improvements package could include:

   - **Strengthened incentives on passenger and freight operators to reduce costs** through greater cost-reflectivity of the existing variable charges (though on a more incremental scale than under **the infrastructure costs package**).
   - **Strengthened incentives on Network Rail**, including when taking decisions on whether to accommodate extra services on the network (e.g. through a more accurate variable-fixed cost balance).
   - **Closer alignment of industry incentives**. Train operators should have more incentives to work together with Network Rail to drive down costs as they would be paying the true cost they impose on the network.
   - Continuity of the current broad framework for short-run variable charges should provide the same level of **predictability and stability** as is currently the case, albeit with potential for **transparency** to be improved.
   - Cost reductions would improve efficiency and **reduce the funding requirement from governments.**
   - A **better understanding of what causes costs** on the network, which will inform decisions taken by Network Rail, funders and ORR, thus improving decision making and support lower costs in the long-run.

4. Challenges/costs of implementing the improvements package could include:

   - The **magnitude of impacts is limited by the scale of variable costs**, as the improvements package focuses only on the existing variable charges (around 16% of Network Rail's income) so any impacts will be relatively limited.
   - The extent to which improvements to the current charges will be able to incentivise a change in behaviour and a better alignment in incentives between

Network Rail and train operators will depend on **the level (if any) of exposure of the train operators to these changes in charges**.

- Ensuring that the **costs to the industry of familiarising** themselves with the potential options under this package, as well as **calculation and implementation costs**, are proportionate to the improvement.
- **The complexity of making changes**, including Network Rail's technical ability to accommodate changes in the current short-run variable charges.
- **Possible redistribution between passenger and freight services**, as well as in coverage between geographical markets.

2. Counterfactual

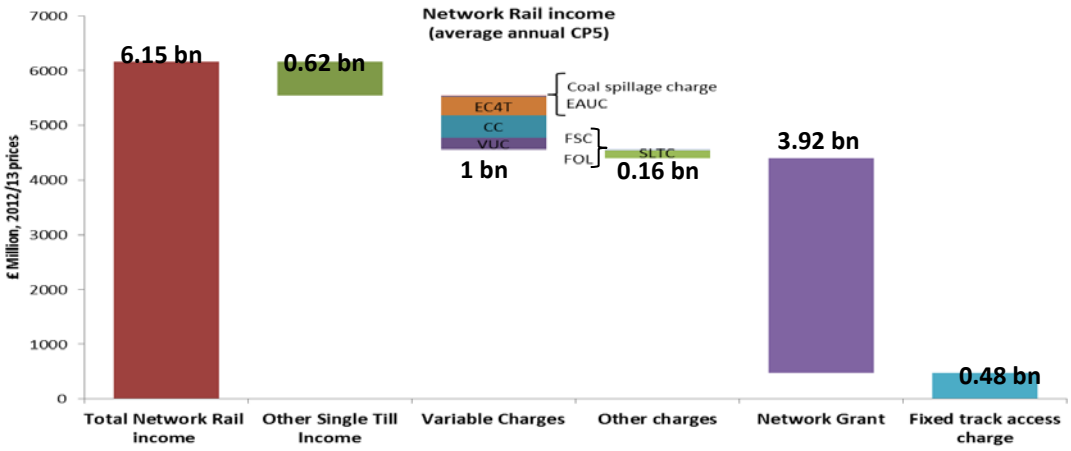
5. We are comparing the improvements package against a counterfactual. For the purposes of this assessment, we define the counterfactual as a 'do nothing' scenario. This assumes no substantial changes to the structure of existing charges for access to Network Rail's network, as well as no substantial changes to current funding and regulatory arrangements in the wider rail industry (i.e. the current 'state of the world'). In the event that changes are made to other aspects of the structure of charges, we would need to review the impacts set out in light of those changes.

Current structure of charges

6. Under the counterfactual, operators continue to pay to access the network under the existing structure of charges, and that the structure of the existing short-run variable charges remain unchanged from those that currently apply. Description of the existing charging structure, including the different charges currently in place and their intended incentive properties, is set out in Annex A of this consultation document.

7. The primary aim of the improvements package is to address the identified weaknesses of the current variable charges (more information on the gap analysis can be found in Annex B of the consultation document). These represent around 16% of Network Rail's total income from charges, other single till income and the Network Grant (see Figure 1 below). Charges that recover the residual, including fixed costs are considered under the infrastructure costs package.

Figure 1: Breakdown of Network Rail's total income (average annual CP5)



8. The existing short-run variable charges that are covered by the improvements package include the variable usage charge (VUC), the electricity asset usage charge (EAUC)

and the traction electricity charge (EC4T), the coal spillage charge (CSC) and the capacity charge (CC). The improvements package also considers existing financial incentive mechanisms: the volume incentive (VI) and the route-level efficiency sharing mechanism (REBS).

9. In terms of the counterfactual, there is some evidence to support the fact that, in places, the existing variable track access charges are effective at recovering short-run variable costs and in reflecting cost drivers, which helps to provide incentives to reduce cost and to improve decision-making. For example, one of the findings of the 2014 report by Credo for ORR, "Evidence gathering on the effectiveness of PR08's incentives regime" (2014 Credo report), is that the VUC forms a consideration for franchised train operators when introducing new services during the franchise.

10. At present, there are factors that might limit the impact that the short-run variable charges can have. For example, the five-yearly cycle of reviewing and resetting charges, the duration of franchises and the level of franchise protection from changes in charges over the duration of the franchise. It is also important to recognise that charges are not the sole driver of behaviours for Network Rail and train operators. Other factors outside of the scope of existing regulatory framework can affect the incentives parties face. For example, corporate priorities or other market forces like a change in rail demand.

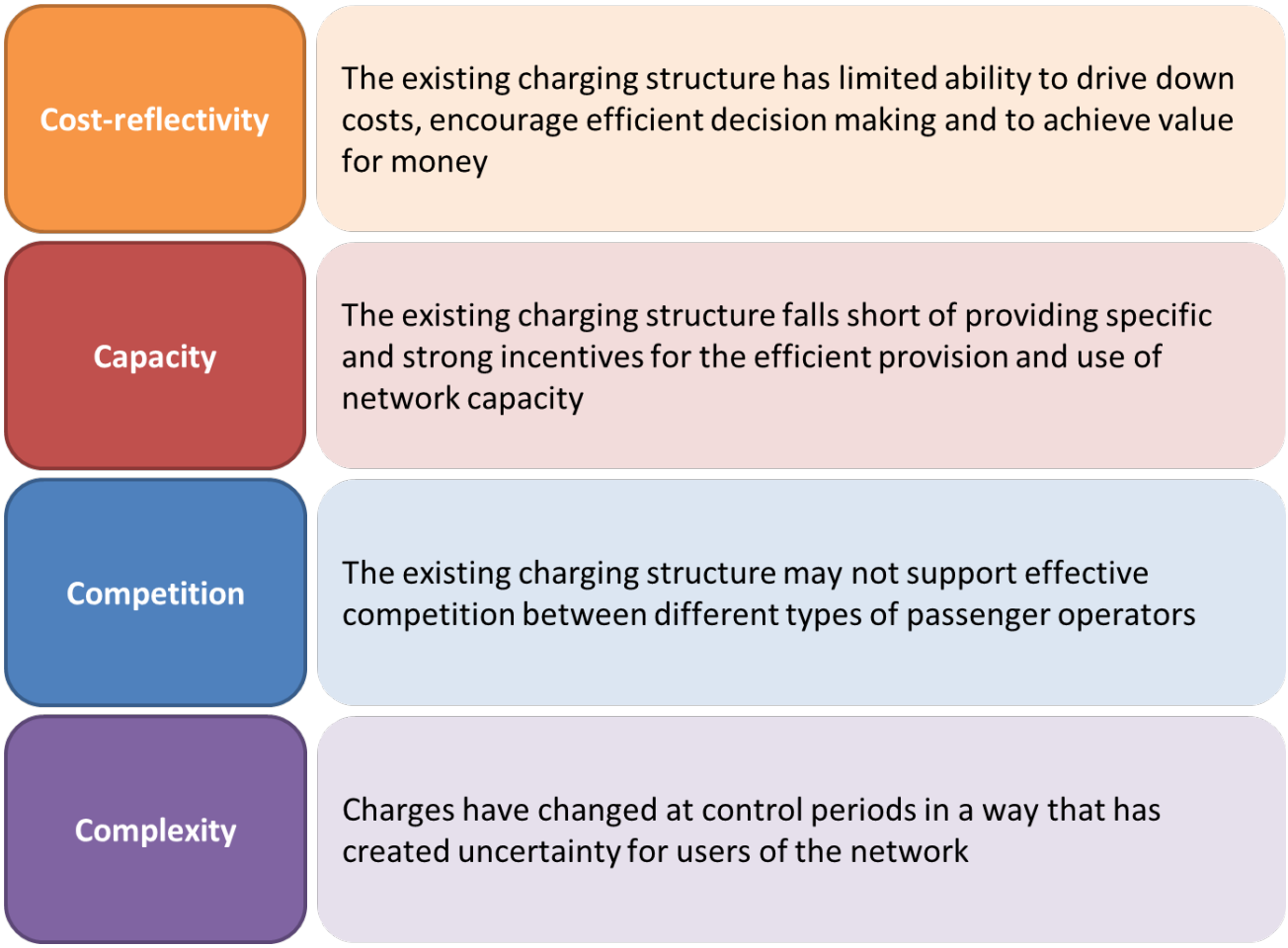
3. Rationale for intervention

11. As part of the structure of charges review we have carried out a gap analysis. This involved comparing the outcomes of the existing charging structure with our key charging objectives. It helped us to understand how far our current charges are from meeting these objectives.

12. The gap analysis identified the following four themes which summarise the main shortcomings of the existing charging structure. These provide a helpful framework for thinking about options for how we might best improve on the existing charging structure.

13. In respect of the improvements package, the most relevant 'gaps' relate to aspects of the cost-reflectivity gap (i.e. that there could be improvements to the cost-reflectivity of charges) and the complexity gap (i.e. the charges could be made more accessible).

Figure 2: Gaps identified in relation to the existing structure of charges



4. Appraisal criteria

14. We have developed a set of appraisal criteria for assessing the impacts of different future charging options we could consider as part of the upcoming periodic review. Specifically, the criteria will help us measure:

    - how successful each option is at meeting our key charging and objectives; and
    - how well it helps to address the identified gaps.

15. The assessment criteria will also help us to ensure consistency of approach and coverage of all relevant costs and benefits. The following criteria were agreed after considering a range of sources based on the legal and policy aspects:

    - Impact on key charging objectives;
    - Wider policy impacts;
    - Potential for the option to address identified gaps;
    - Wider external impacts;
    - Legal impacts; and
    - Alternative states of the world.

16. In Annex D to our consultation document we provide an overview of each of the above criteria, in particular the rationale for including, and sources used in creating, each criterion, and important considerations when applying the set of criteria to the assessment of the long-list of options.

5. Option generation

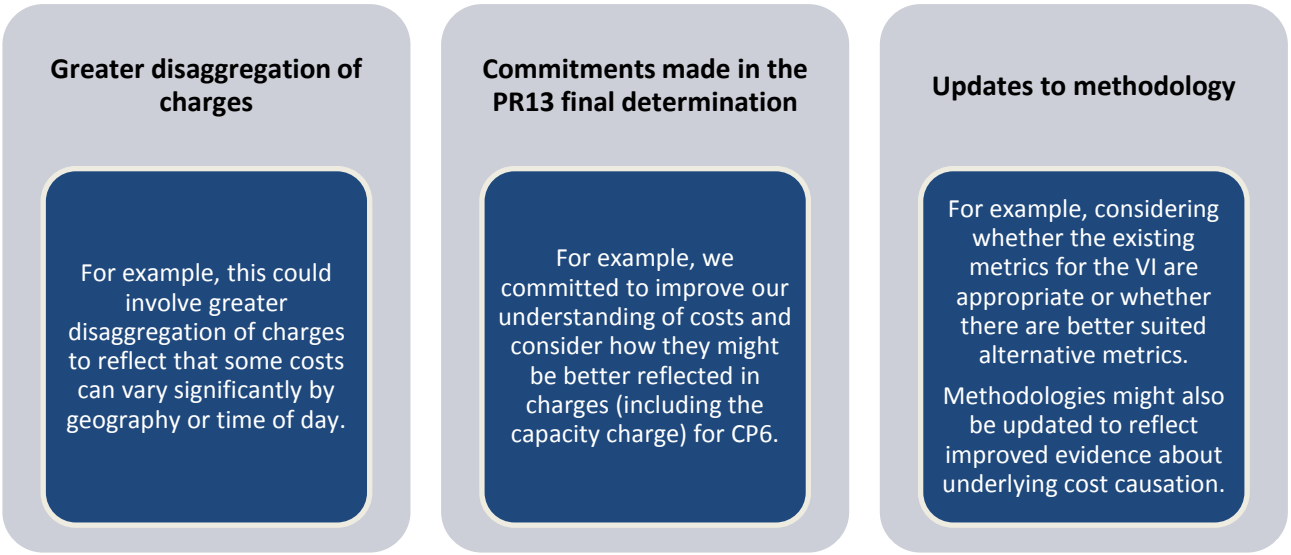
17. Under this package, we would not seek to make wholesale changes to the existing variable charges. Instead, the main focus would be around developing and applying options to address weaknesses within the existing charging structure. In particular, options under this package would seek to improve the cost-reflectivity and perceived complexity of the short-run variable charges.

18. As part of PR18 we would draw up a full list of options within this package and carry out an assessment of these in order to shortlist those options that provide a proportionate improvement on the current charging structure. As part of our evidence base, we would consider the work that the Rail Delivery Group (RDG) has done to date in its review of charges. This includes the work it did to:

    - Produce a vision outlining what charges and incentives regime should deliver over the next 15 years (available here).
    - Assess how the current charges and incentives regime performs against the vision framework (available here). RDG's findings of this assessment have been incorporated into our gap analysis (see Annex B of the consultation document).
    - Shortlist and assess a range of options for changes to charges and incentives regime (available here). The options considered in further detail include three network charging options, two options for reforming the Schedule 4 possessions regime, and two options for reforming the Schedule 8 performance regime, in one case removing the capacity charge.

19. As we have not yet carried out the step of shortlisting options, the examples shown below in Figure 3 are for illustrative purposes only, allowing us to show (in the next section) the type of assessments we will carry out. These options in no way define or limit the scope of this broad improvements package.

Figure 3: Illustrative options under the improvements package



20. Aspects of this package could be combined with the infrastructure costs package and value-based capacity package to provide a wider set of improvements. Changes implemented by either of these other broad packages could also affect the relevance and possibly the priority of the options in the improvements package.

6. Option assessment

21. In this section we assess the potential impacts of introducing the improvements package, at a high-level drawing on the illustrative examples set out in Figure 3. The potential impacts are assessed against the counterfactual scenario and the assessment criteria (both as outlined in section 2 and section 4, respectively). Reflecting the current phase of our work, this impact assessment provides a mainly qualitative assessment of potential costs and benefits.

A.Impact on key charging objectives

22. Improving cost-reflectivity of the current charges, i.e. setting the charges at a level that is closer to the actual level of costs, is the main focus of the improvements package. It would do so in a more modest way to the infrastructure costs package and in respect of those charges which are levied currently to recover the costs of short-run marginal use of the network.

23. In the PR13 final determination, we made a commitment to do more work in the early part of CP5 to improve our understanding of costs and consider how they might be better reflected in charges for CP6. One option for meeting this commitment could be disaggregation of some charges to bring them in closer alignment with the drivers of costs they are designed to recover. This could be done on a geographic or time of day basis, for example.

24. We recognise that at this stage it might be premature to narrow down the scope of which charges might be better suited for the implementation of increased disaggregation. We aim as part of PR18 to work with industry to identify those options that merit more detailed assessment.

25. However, in order to describe the potential impacts of improvements to the cost-reflectivity of short-run variable charges – be it through disaggregation or other improvements to underlying methodologies – we have adopted an illustrative example. This illustrative example is the geographic disaggregation of the VUC.

Illustrative example of geographically disaggregated VUC

26. The current VUC is calculated based on a network-wide average rate for each vehicle type and is not geographically disaggregated. This means that the VUC rate is the same for a given vehicle wherever it is operating. In Network Rail's Strategic Business Plan 2007, Network Rail referred to its analysis into the presence of cost variation across the network and cited route type and curvature as the two main drivers of this cost variation.

27. The 2008 report by ITS for ORR, "Peer review of Network Rail's indicative charges proposal made as part of its strategic business plan" (2008 ITS report), concluded that route and curvature based charging reflected variations in marginal costs better than nationally average approach and could incentivise train operators, Network Rail, rolling-stock companies and funders to make decisions in an optimal way (through trading off the overall marginal benefits with the overall marginal costs).

28. This evidence suggests that a nationally averaged VUC rate may not be a good reflection of the true cost for most of the network. In some locations, charges may be set below the costs imposed on the network, whilst in others charges may be set above the costs imposed on the network. Reflecting this, geographic disaggregation of the VUC might improve the link between costs and charges, and so improve decision-making and incentives around cost efficiency and use of capacity.

29. In paragraphs 30-39 below we use the example of geographically disaggregated VUC to describe the types of impacts that might be expected from improved cost-reflectivity of short-run variable charges. It should not be assumed that the use of this example implies that geographically disaggregated VUC would be one of our shortlisted options in this broad improvements package. A careful assessment of the potential costs and benefits, as well as consultation and engagement with the rail industry, would be essential to make that decision. Furthermore, we understand the concerns that RDG raised in its review of charges that implementation of disaggregation of the VUC on its own could provide perverse incentives around the use of heavily used parts of the network. We also recognise that the VUC is already significantly disaggregated by vehicle type, and further differentiating it by geography would add to the charging complexity. It might also involve considerable costs in designing the charge and for operators to respond. There might also be significant issues with obtaining the required data too and questions over what level of disaggregation to use.

Supports efficient use of the network and lower network costs

30. Improvements to cost-reflectivity might lead to the following impacts (in each case illustrated using the example of geographic disaggregation).

31. **Strengthened incentives on passenger operators** to deploy available rolling stock across different locations and to operate them in ways that reduce costs to Network Rail. For example, to the extent that franchise agreements and rolling stock characteristic allow, franchised operators might be expected to deploy track-friendly rolling stock in locations that have relatively higher wear and tear costs. This impact depends upon the nature and extent of cost exposure faced by franchised operators, but would influence decisions taken by open access operators.

32. **Strengthened incentives on freight operators** to seek routings that reflect the relative damage caused by different rolling stock and/or types of freight.

33. **Improved decision-making by rolling-stock companies** in terms of the incremental development of rolling-stock and the design of future train orders. These effects might be expected to be realised over the longer-term, particularly in respect of decisions relating to new rolling stock.

34. **Greater alignment of interests between Network Rail, passenger operators and freight operators**, so that all parties face better incentives to collaborate to reduce costs in locations where those costs are higher and where cost savings can be best made.

35. Improved information about underlying costs, including the split between fixed and variable costs, would **provide a better basis for ORR, passenger operators, freight operators and funders to hold Network Rail to account**, and support further cost reduction.

Supports efficient allocation and provision of network capacity

36. In general terms, better information about costs – and how they vary in different locations (under our illustrative example) – would tend to **improve decision-making by Network Rail, ORR and funders**, and could affect a number of different decisions. For example, Network Rail and ORR decisions on access rights could be improved by a better understanding of variable costs, including how they vary in different locations and between alternative applications for access.

37. Improved cost-reflectivity might also **improve the information available to franchise authorities and funders taking decisions about investments in the network and/or rolling stock.** For example, different franchise proposals could be evaluated using a better understanding of the impact of different service patterns and rolling stock on Network Rail's costs. While better information about track damage might improve the assessment of business cases relating to rolling stock procurement by governments.

38. In addition, if short-run variable charges are set below or above true variable costs, then Network Rail's revenues from variable charges would not match the full costs of accommodating extra services on the network – this could happen in particular locations (as discussed in paragraph 26-28 above) or be a more general feature if total income from variable charges differs from the total variable costs. Improvements to cost-reflectivity would **improve Network Rail's incentives to accommodate traffic and to find additional capacity on the network.**

Magnitude of effects

39. In terms of the possible magnitude of the above effects, the following might provide an indication of the potential scale of benefits of considering geographic disaggregation of the VUC:

    - 2015 report by Steer Davies Gleave for ORR, "Identifying the benefits of an improved understanding of Network Rail's costs and cost drivers" (2015 SDG report), explores the scale of potential cost savings resulting from better informed decisions around rolling stock procurement and deployment. Based on the case study of the procurement of Class 444/450s on Wessex route, SDG estimated a cost saving of around £60m per control period resulting from more efficient procurement decisions. Better reflection of maintenance and renewal costs in VUC resulting from new rolling stock were considered key factors in driving more efficient decisions on rolling stock investment.[1]

    - Industry expenditure on infrastructure maintenance costs by regional operating route might give an indication of how the scale of required track maintenance varies between different routes. As a proxy, maintenance per track km across routes could be used to demonstrate the scale of differences between the costs incurred on each route. For example, in 2013-14[2] maintenance costs per track km were highest for Anglia route (approximately £0.05m) and lowest for Scotland Route (approximately £0.02m). However, such comparison should be treated with caution and for indicative purposes only. Evidence regarding the major track asset management cost drivers differs among a number of studies commission by ORR and Network Rail during the course of different periodic reviews. Some of the studies concluded that track asset management cost drivers are based on tonnage and curvature; other studies concluded that track asset management cost drivers are based on route category.

Impact on key charging objectives - continued

40. The rest of this impact assessment document moves away from the illustrative example of the geographically disaggregated VUC and goes back to the discussion of the broad improvements package, as described in Figure 3 above.

[1] If the variation in cost is driven by location, then the impacts relating to rolling stock deployment will be more likely to occur in the near term. If variation in cost is by time of day, it is perhaps less likely that rolling stock deployment would change in the near term (but rolling stock design/procurement might still change over the longer-term).

[2] For the data on maintenance figures per route please refer to GB Rail Industry Financial Information 2013-14, ORR, February 2015, Table 4.3.

41. At this stage it is difficult to estimate the likely impact of the proposed improvements package on the direction and magnitude of charges.[3] However, greater cost-reflectivity could have distributional impacts within the current variable-fixed cost balance, i.e. if a charge has previously been under-estimated then it will go up to reflect the true cost incurred, and vice versa. The 2015 SDG report explores the scale of benefits that could be achieved by improving the balance between variable and fixed costs. This is explained in detail in the infrastructure costs package impact assessment.

42. In addition, if we identify that our current estimates of the marginal costs are lower than the true costs of using the network, the overall level of costs recovered through variable charges would increase. This should not affect the overall level of income to Network Rail because this change would be balanced with a reduction in the amount recovered through charges which act as a balancing item e.g. through fixed cost based charges.[4] However, under this scenario, the proportion of Network Rail's income that comes from variable charges would change.

43. The ability of the improvements package to facilitate these incentives will depend on the extent of cost-reflectivity achieved. It is not likely to have effects as significant as some of the options considered in the infrastructure costs package since it is focused only on existing variable charges which constitute just around 16% of Network Rail's charging income.

44. In addition, the extent to which improvements to the current charges will be able to incentivise a change in behaviour and a better alignment in incentives between Network Rail and train operators will depend on the level (if any) of exposure of the train operators to these changes in charges. Under the existing franchise agreements, franchised operators are held mostly harmless to changes in track access charges at Periodic Review.[5] This does not apply to freight operators[6] and open access operators. This suggests that if the current level of exposure of franchised operators does not change then the effectiveness of incentives offered by this proposed improvements package will be somewhat limited.

[3] Though this will become more obvious as individual improvements within this broad package are fully developed.

[4] The FTAC covers all costs in the revenue requirement not recovered by the rest of the structure of charges (the 'net revenue requirement').

[5] Section 9 or Clause 18.1 of the franchise agreements hold franchised operators harmless to the changes in charges during Periodic Review.

[6] Though freight operators are not directly protected from changes in charges in their contracts like franchised operators are, some charges for freight, e.g. VUC, have been capped in CP5.

B.Wider policy impacts

Predictability, stability, simplicity and transparency

45. We expect this package to provide a degree of continuity to network users and Network Rail, and therefore support predictability and stability of short-run variable charges. In terms of transparency of the existing charging structure, this broad package has a strong potential to improve this by improving Network Rail's cost information available, e.g. by increasing the level of data disaggregation required for some charges.

Practicality, cost effectiveness, comprehensibility, and objective in operation

46. Compared to the large structural changes proposed under the infrastructure costs package and the value-based capacity package, the costs on industry for familiarising themselves with the proposed improvements under this package are likely to be lower. However, some improvements might not be particularly straightforward – such as changes to disaggregate charges by location.

47. To illustrate, consider the example of changing the current methodology of calculating the VI payment rates from a value-based calculation to a cost-based calculation. A cost-based approach might be easier for stakeholders to understand, increasing the likelihood that there is a response to the designed incentives. However, this approach could also have potential calculation difficulties and might prove to be an involved exercise for the industry to familiarise themselves with the new calculations.

48. Another important consideration when assessing practicality of each of the potential options should be the potential impact on Network Rail if changes are not implemented correctly thus creating perverse incentives. Using geographic disaggregation of payment rates for the VI as an illustrative example, incorrect calibration of the rates could result in Network Rail taking too much performance risk on busy parts of the network, putting pressure on its regulated output targets.

49. Improvements that focus on further disaggregation of some charges could require the level of data granularity that is not currently readily available and it might be an expensive exercise to obtain this data. We recognise that the benefits of more disaggregated charges may be reduced or even outweighed by the administrative burden of implementing these changes. As a way of mitigating this, we will undertake a cost-benefit assessment of each of the proposed improvements once they have been developed in more detail. This will allow us to assess whether the current approach to calculating charges is the most proportionate way going forward. One potential way of

understanding the challenges and mitigating any risks would be to pilot this approach in one area before rolling it out across the network.

50. Though some linkages between the proposed improvements exist, most of them can be implemented on a standalone basis or in parallel to each other. The decisions around when to implement individual improvements as part of this broad package will be developed at a later stage with the aim of minimising any negative implementation impacts on the industry.

C. Potential for the option to address the gaps identified in our gap analysis

Cost-reflectivity gap

51. This broad package of improvements to the current charges could contribute to addressing the cost-reflectivity gap identified. Though we expect this improvements package to deliver only an incremental improvement to the cost-reflectivity of the current charging structure, there is a potential for proposed improvements to have an impact on the split between Network Rail's variable and fixed costs bringing it closer in-line with the true cost split (as explained in paragraph 41-42 above).

Capacity gap

52. The impacts on the capacity gap are likely to be limited in nature under the improvements package compared to the value-based capacity package. This is because the current charging structure does not include any charges to reflect the relative value of train paths on different parts of the network, so a package which is focused on improving existing charges will struggle to address this gap.

53. However, the improvements package can have an indirect impact on the capacity gap through changes to the VI and the CC. For example, changing the CC to reflect wider externalities of running a train on the network could significantly improve its ability to close the gap between the marginal benefit and marginal cost of running an additional train on the network.

54. Another way to improve incentives on Network Rail, and therefore improve the provision of network capacity, might be to look at whether alternative metrics could be more effective at capturing things that Network Rail can specifically do to accommodate additional services. If we could identify such metrics, these should improve the link for decision makers between Network Rail's actions and the financial rewards/penalties resulting from the VI.

Competition gap

55. An increased cost-reflectivity of the current variable charges could directly impact marginal competition between franchised passenger operators and open access operators by improving the degree to which charges reflect the (short-run variable) costs that the two types of passenger operators impose on the network.

56. This could improve some decisions taken by competing operators, as the impact on variable charges would more accurately reflect underlying costs. In particular, the introduction of geographic disaggregation of variable costs would improve the signals sent to open access operators about where to operate services, and encourage better decisions around the type of rolling stock to use.

57. However, as noted above, the magnitude of these impacts will be limited by the fact that variable costs account for a relatively limited proportion of overall costs.

Complexity gap

58. The likely impact of this improvements package on the complexity gap is somewhat ambiguous and depends on the individual design of each improvement under our consideration.

59. As an illustrative example, consider the effect on complexity of increasing disaggregation of a charge. If a charge is currently disaggregated by vehicle type, for example, then a further disaggregation by some geographic measurement could significantly increase the perceived complexity of the given charge and could negatively impact the intended incentive due to operators struggling to understand that incentive any longer. However, if the charge is simple at the point of use then introducing multiple levels of calculating the charge should not add to the complexity of decision-making; albeit that a perception of complexity may still adversely affect the benefits realised in practice.

60. There are ways to mitigate the adverse effects of perceived complexity. For example, the complexity associated with understanding how charges vary with different operational decisions can be addressed through the production of spreadsheet tools that allow users to calculate easily the charges that would be incurred from a particular service.

61. Furthermore, the perception of complexity can be addressed through frequent engagement and consultation, together with ensuring that there are accessible explanations of how charges are calculated and how they might vary across locations, services and time.

D. Wider external impacts

62. In terms of the **funds available to the Secretary of State**, the improvements package would tend to have a positive impact as the improved understanding of Network Rail's costs and greater cost-reflectivity are likely to lead to a range of better informed decisions in the rail industry (as discussed in paragraphs 30-38 above), leading to lower Network Rail's costs and as a result to a lower burden on the Secretary of State's funds. These impacts are likely to take place over the longer-term, as the impact of changes to behaviour feed through into costs.

63. In term of the **distributional impacts**, elements of the same logic for explaining potential distributional impacts under the infrastructure costs package and the value-based capacity package apply here. We expect any distributional impacts of the improvements package to be proportional in effect relative to the other two broad packages. We summarise the key points below.

64. Depending on the options taken forward, we would expect the improvements package to deliver greater cost-reflectivity of charges to provide clear price signals to the train operators about the costs of using different parts of the network. This could lead to some redistribution between passenger and freight train services, as well as the coverage of passenger services between geographical markets.

65. For example, if variable costs of running a passenger service through urban areas were lower than doing so through rural areas, then we would anticipate passenger service operators to face a degree of incentive to switch their flow of traffic from rural areas to urban. As a result, some locations and communities could gain but others could lose. However, we would not expect that this would lead to a loss of services with a high social value as these are usually protected under franchise agreements, and changes would only take place if the difference in cost offsets any reduction in revenue.

E. Legal impacts

66. Any charging framework we put in place as part of PR18 has to be compliant with the relevant legislation. The European Railway Directive 2012/34/EU ('the Directive') sets out the principles for access charging. This Directive should be transposed into British law soon and will replace the Railways Infrastructure (Access and Management) Regulations 2005 ('the Regulations'), currently in place. We expect this Directive to be transposed into British law before PR18 commences. Until this is transposed we cannot be certain of the exact provisions. However we expect many of the provisions to be similar to the Regulations, so we will use those and the Directive as a guideline for what the transposition may contain.

67. The starting point is that Network Rail must set fees for the use of the infrastructure at the cost that is directly incurred as a result of operating the train service. This is likely to be the most relevant provision in the legislation for this package as this package aims at improvements for recovering short-run variable costs. Also relevant for this package is the Commission's Implementing Regulation 2015/909 which sets out the modalities for the calculation of the cost that is directly incurred as a result of operating the train.

68. When we have further defined options to assess, we will also ensure we consider all factors that may affect our statutory duties which are laid out in full in Section 4 of the Railways Act 1993. Consideration of many of the duties has been included above in the relevant sections of the analysis but this is limited due to the broad definition of the package at this stage.

69. Similarly, we will also ensure full compliance with the Regulatory Enforcement and Sanctions Act 2008 and the Equality Act 2010. These are explained in Annex D.

F. Alternative states of the world

70. As explained previously, implementation of this improvements package will result in a charging structure that is similar to the current one. However, it is still important to test the impacts of these improvements under various alternative states of the world. Some examples are considered below:

    - If the current level of franchise protection was reduced then franchised operators would have stronger incentives to change their behaviour in response to changes in charges. In this case, any improvements to current charges would be likely to deliver greater benefits.

    - The issue of exposure of train operators to changes in the existing charges is also relevant for freight operators and open access operators. Currently, these two types of train operators are not protected from the exposure to charges in the same way that franchised operators are. If in the future this was to change and **freight/open access operators were given more protection**, then making any improvements to the current charges would be likely to deliver fewer benefits, since the incentive properties of charges will be dulled for all operator types.

    - Similar logic applies to the **level of franchise specification**, whereby under the current high level of franchise specifications franchised operators have limited flexibility to change their behaviour, e.g. change their service pattern in response to a change in access charges. The nature of franchise flexibility could be important here: for example, flexibility to vary rolling stock deployment

– within a given service pattern – might allow franchised operators to respond to incentives to reduce track damage in locations where possessions costs are particularly high.